

MOLLUSCA OF THE KERMADEC ISLANDS

PART 2

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ABSTRACT

In this part three new species are described of the genera, *Baryspira*, *Fusinus* and *Lutraria*, respectively. The *Baryspira* is remarkable in that it belongs to the subgenus *Spinaspira*, which previously did not have a Recent representative. The subgenus is known from the lower Miocene to the lower Pliocene of New Zealand and the Miocene of France. The first part of this series appeared in these 'Records' (1958 Vol. 5, Nos. 1 & 2, pp. 65-85). In subsequent parts it is proposed to review the whole of the Kermadec Island molluscan fauna.

Family FASCIOLARIIDAE

Subfamily FUSININAE

Genus **FUSINUS** Rafinesque, 1815.

Type: (monotypy) *Murex colus* Linnaeus, 1758.

Fusinus galathea n. sp. Plate 38, Fig. 3

Shell rather large, elongate fusiform, combining the characters of *colus* (Linnaeus) with those of *nicobaricus* (Lamarck). It has the sculpture of *colus*, i.e., pointed tubercles, confined to a peripheral carina, relatively weak spiral cords, and the style of aperture of *nicobaricus*, i.e., a broad free thin edged inner lip and a relatively short and stout, double flexed anterior canal. Spire tall, about five sevenths height of aperture plus canal. Protoconch eroded. Post-nuclear whorls angulated at just below middle whorl height; shoulder slope straight, wide and steeply descending. Axial sculpture of weak vertically compressed tubercles confined to the peripheral carina. Spiral sculpture of somewhat irregularly developed cords and threads, 3-5 primary cords from the periphery to the lower suture. On the base the primary cords are more regularly spaced, with 2-3 threads in each interspace. Aperture ovate, relatively large; outer lip delicately crenulated, and lirate within; inner lip very broad and smooth, with a thin free outer edge, raised 5 m.m. out from the columella. Aperture proper and anterior canal of approximately equal height. Anterior canal relatively short, stout and double flexed. Colour dull white without maculations. Operculum leaf-shaped with a terminal nucleus.

Height 96.0 mm.; width 33.0 mm. Holotype.

Localities—Raoul Island, Kermadec Islands; "Galathea" Sta. 674, 29° 15' S., 177° 57' W., 75-15 metres, Mar. 3, 1952 (Holotype); "Galathea" Sta. 675, 29° 13.5' S., 177° 52' W., 58-60 metres, Mar. 3, 1952.

Holotype—In the University Museum, Copenhagen.

Family OLIVIDAE

Genus *Baryspira* Fischer, 1883.

Subgenus *Spinaspira* Olson, 1956.

Type: (o.d.) *B. (S.) stortha* Olson, 1956.

Shells of this subgenus are characterised by a low conic spire, a heavy parietal callus, and a strong callused peripheral spiral keel. Altonian, lower Miocene to Waitotaran, lower Pliocene of New Zealand. There is also a Miocene species, *B. glandiformis* (Lamarck) (Cossmann, Essais Pal. Comp. 3, p. 65, pl. 3, f. 3) from the Burdigalian and Helvetian of France, but the species described below makes the first Recent record for the subgenus.

Baryspira (Spinaspira) raoulensis n. sp. Plate 38, Figs. 4, 5.

Shell large and very solid, subcylindrical, with a short broadly conical spire; apex eroded. Parietal callus strong and wide-spreading, extending above to the shoulder slope of the penultimate whorl, as well as a little distance back from the aperture, on the shoulder slope of the body-whorl. There are two pronounced callus pads, a long one from the parietal wall to the penultimate, and another behind the aperture on the shoulder slope; a long vertical groove separates the two. The peripheral angle of the body-whorl is encircled by a prominent smooth keel-like spiral ridge. The coloration is distinctive; spire down to about one sixth body-whorl height is brownish-orange, then the broad body-whorl median area is almost equally divided by a chocolate upper band and a lower white band. Below this, and immediately above the anterior fasciole there is a narrow band of brownish-orange. The holotype is beach worn and faded so the indication is that a fresh specimen would be much darker, especially the median chocolate band.

Height 56.0 mm.; width 30.0 mm.

Locality—Denham Bay, Raoul Island, Kermadec Islands (T. Iredale, 1908).

Holotype—Australian Museum, Sydney (C. 64838).

Paratype—Dominion Museum, Wellington.

Family MACTRIDAE

Subfamily LUTRARIINAE

Genus *LUTRARIA* Lamarck, 1799.

Type: (s.d., Gray, 1847) *Mya oblonga* Gmelin, 1790.

Lutraria bruuni n. sp. Plate 38, Figs. 1, 2.

1910—*Lutraria oblonga* (Gmelin), Iredale, Proc. Malac. Soc., 9, p. 72 (non *Mya oblonga* Gmelin, 1790).

1915—*Lutraria magna* (Costa), Oliver, Trans. N.Z. Inst., 47, p. 556 (non *Chama magna* da Costa, 1778, Brit. Conch., p. 230).

I have not seen the shells, "valves dredged near Sunday Island", which both Iredale and Oliver ascribed to English species, but I have a series of valves dredged by the "Galathea" from off Raoul Island (=Sunday Island) in 15-83 metres, which can be considered topotypic of both Iredale's and Oliver's records.

The Kermadec shells are rather similar to the English type species of the genus in that the posterior gape is slight; the posterior slope, however, is long and straight, the ventral margin is more strongly and evenly arcuate,

and the narrowly subangulate points of maximum length of the shell are above middle height. An important difference is in the shape of the resiliifer pit, which is obliquely broadly triangular in the English species but inverted comma-shaped in the Kermadec shells. Also there is a weak internal groove running from the resiliifer to the ventral margin in the English *lutraria* (Linnaeus, 1767) but this feature is absent from the Kermadec shells.

The Kermadec species is of light build, white, with traces of an olive-brown periostracum and the surface is smooth apart from numerous weak growth lines.

The Kermadec shell is unlike the southern and south-eastern Australian *rhynchaena* Jonas, 1844, in which the posterior dorsal slope is strongly concave. The straight posterior dorsal slope of *bruuni* can be matched in *elongata* Gray, 1837, but that species has the ventral margin long and straight also, not strongly arcuate.

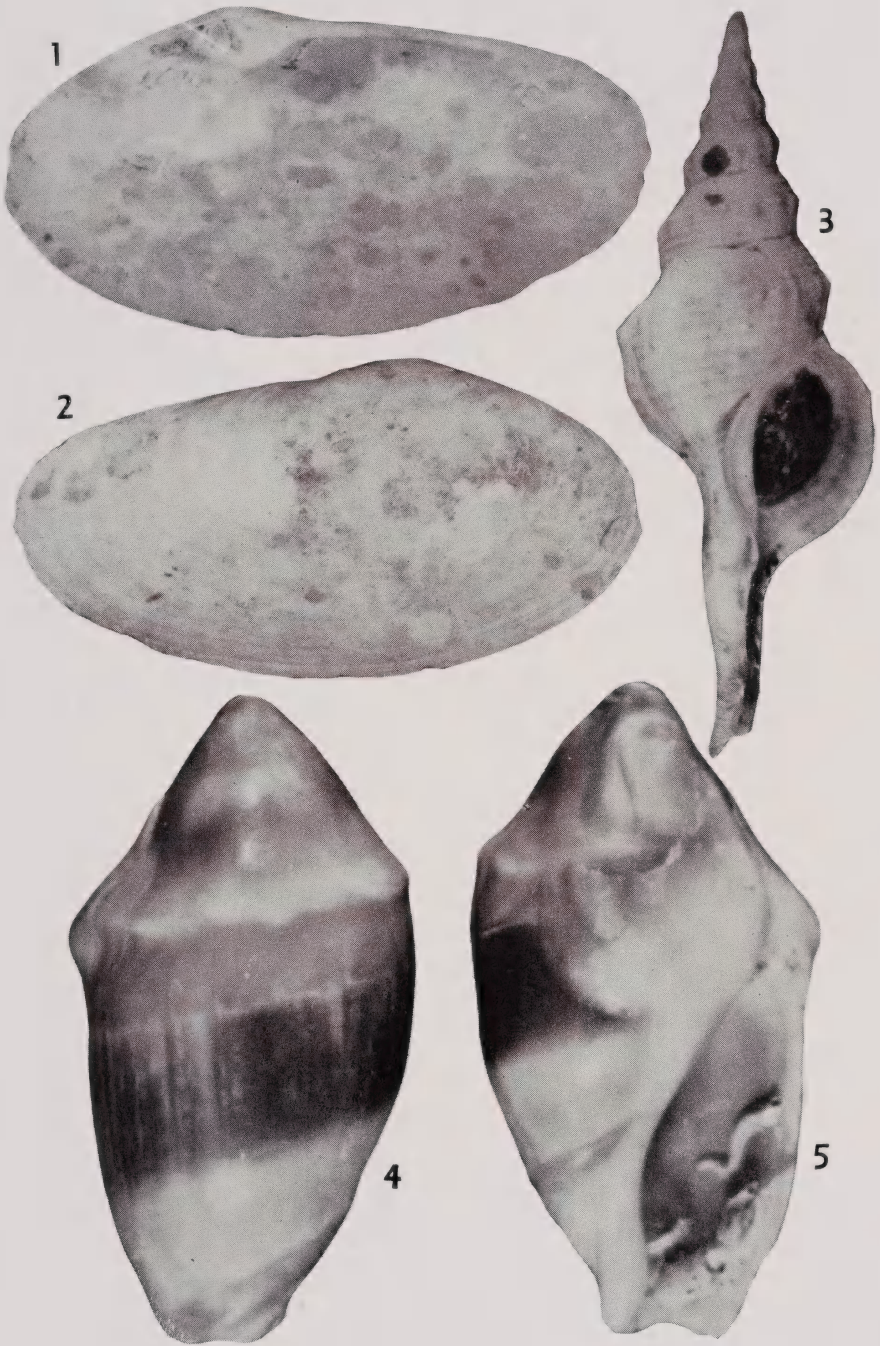
It may be noted that Iredale (1929, Mem. Queensl. Mus., 9, 3, p. 268) renamed this species *Lutraria (Lutromactra) impedita* on account of a prior *L. elongata* of Muenster, 1835, but no reason or diagnosis was given for the proposed new subgenus.

Length 71.0 mm.; height 37.0 mm.; thickness (1 valve) 9.0 mm. Holotype.

Length 57.25 mm.; height 29.0 mm.; thickness (1 valve) 7.0 mm. Paratype.

Localities—Raoul Island, Kermadec Islands; "Galathea" Sta. 676, 29° 13.5' S., 177° 57' W., 83 metres, Mar. 3, 1952 (Holotype); "Galathea" Sta. 674, 29° 15' S., 177° 53' W., 75-15 metres, Mar. 3, 1952 (Paratype).

Holotype—In the University Museum, Copenhagen.



Figs. 1, 2 *Lutraria bruuni* n.sp. holotype. Fig. 3 *Fusinus galathea* n.sp. holotype.
 Figs. 4, 5 *Baryspira (Spinaspira) raoulensis* n.sp. holotype.